FIGURE 1

12

Report Flowchart

Adding or updating DUMMY Line for temporarily completing of double entry Journal

User Interface

Report Generator

Other Functions

Double Entries Processing

Exchange Difference Calculation

* Test A

No

Yes

1) Completing double entry Journal and 2) deleting dummy line in case of (JJ and Debit=Equal=Credit)

Data Storing

Information Retrieving

Storing plurality of balanced Journals

Permanent Data already input

Data Retrieving

Immediate feed-back of Completed Voucher to user

10

* Test A – (is not JJ working page) or (is JJ and total debit balance equal to total credit balance in a double entry journal)

Interface commanded by user be Transmitted to user

User Data Capture

Debit   Credit

Account Receivable   Income

Expenses   Account Payable

Monetary   Income & Settlement

Expenses & Settlement   Monetary

Monetary   Monetary

Any Item in Account Chart   Any Item in Account Chart

See Figure 3

16

14

AR 18

AP 20

Rec 22

Pay 24

TT 26

JJ 28

12

User Interface

Report Generator – Information
sorting, analyzing and report
editing

Information be Retrieved from plurality of journals

Stored plurality of balanced Journals

Permanent

10

Report interface commanded by user be transmitted to user

Report requested

Report written by the reports generator, line by line, and be sent to IE
browser of user

Work Platform for Reports

Requisition

Report on screen or
print out
Figure 20

16

14

FIGURE 2

User selects exclusively one of the Six Working Pages (the Data Capturer and Processor). Data input by user and
captured by the Data Capturer and Processor is processed as follows provided that all data tests are passed.
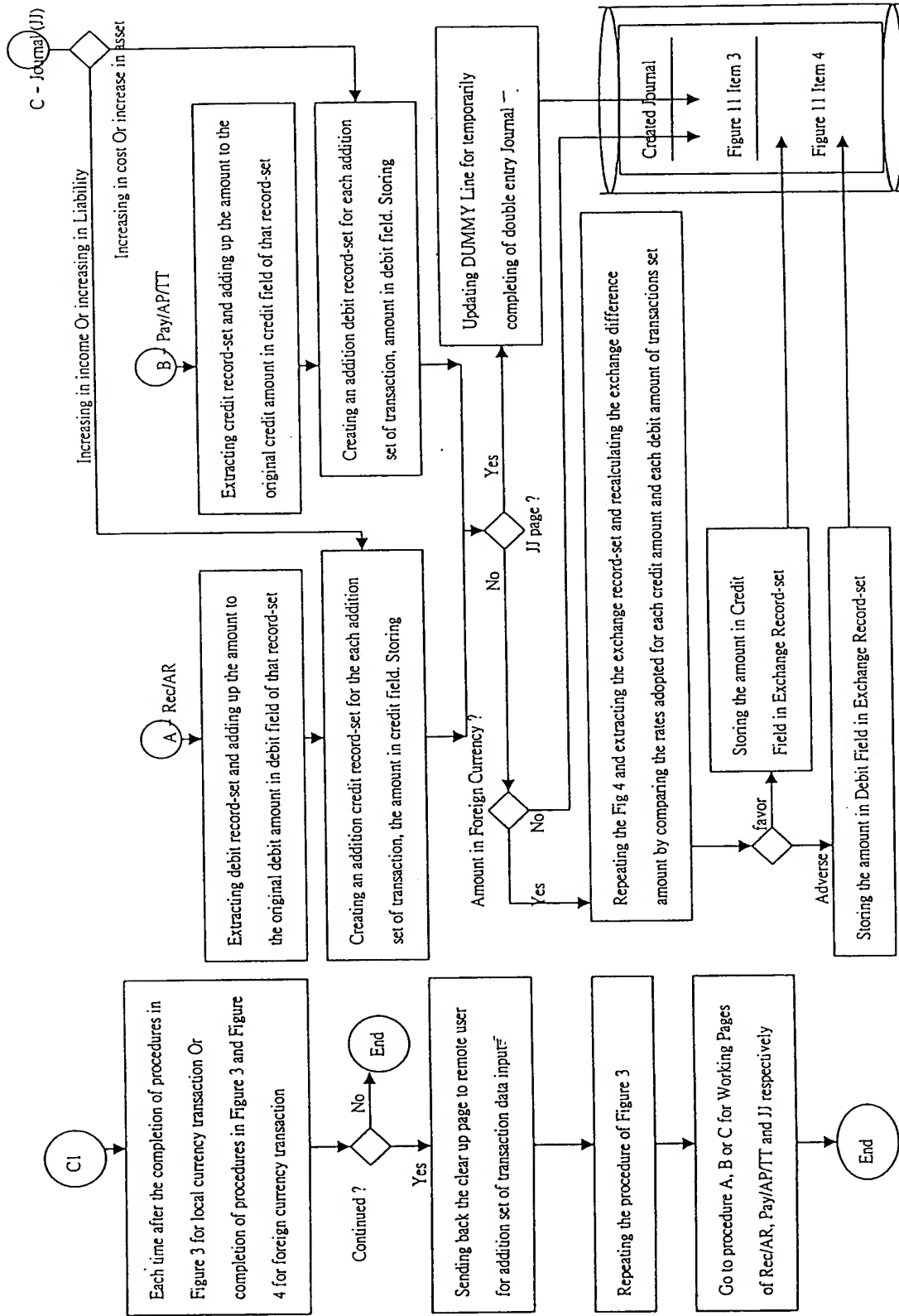

AR-Credit Sale   OR   AP-Credit Purchase   OR   Rec-Monetary In   OR   Pay-Monetary Out   OR   TT-Monetary Transfer   OR   JJ-Transfer between Accounts

Account Receivable S
Income O

Account Payable S
Cost O

Monetary Account Inflow, eg. Bank S
Income Or Credit Sale Settlement O

Monetary Account Outflow, eg. Bank S
Cost, expense Or Credit Purchase O

Monetary Account Outflow S
Monetary Account Inflow O

Whether user input amount in debit or credit cell in JJ page ?

In debit cell

In credit cell

Asset Increase Or Expenses Increase O
Creating a dummy amount in credit S

Liability Increase Or Income Increase O
Creating a dummy amount in debit S

Procedure repeat for
another set of
transaction data in
same transactions set
in same journal -
Figure 5

Debit Amount processed by the selected page for Debit Field posting

Amount in Foreign Currency ?   To exchange calculator Yes   E1

No

Storing amount in Debit Field (and same amount in Open-Invoice Field if credit sale) and zero amount in Credit Field in Debit Record-set

Credit Amount processed by the selected page for Credit Field posting

Amount in Foreign Currency ?   To exchange calculator Yes   E2

No

Storing amount in Credit Field (and same amount in Open-Invoice Field if credit purchase) and zero amount in Debit Field in Credit Record-set

Created Journal – Figure 10 Item 1

S : record set (S)   O : record set (O)

Debit Flow   Credit Flow   Amount Created

FIGURE 3

E2

Credit Amount in Foreign Currency

Test B

Case 1

Case 2

(Credit Amount) x (Transaction Rate)

(Credit Amount) x (Book Rate)

Storing amount in Local Currency in Credit Field (and Open-Invoice filed for Credit Purchase) in Credit Record-set

E1

Debit Amount in Foreign Currency

Test A

Case 1

Case 2

(Debit Amount) x (Transaction Rate)

(Debit Amount) x (Book Rate)

Storing amount in Local Currency in Debit Field (and Open-Invoice field for Credit Sale) in Debit Record-set

Comparing the Exchange Rates adopted for the two amounts ?

Same ?

Yes

No

No exchange record-set be created

Creating an exchange record-set for storing the exchange difference derived

Favor

Adverse

Storing amount in Credit Field in Exchange Record-set

Storing amount in Debit Field in Exchange Record-set

C1

Created Journal – Figure 10 Item 2

Test A – Case 1 Increase in Current Asset or Decrease in Current Liability

Case 2 Increase in Expense or Decrease in Income

Test B – Case 1 Increase in Current Liabilities or Decrease in Current Asset

Case 2 Increase in Income or Decrease in Expense

FIGURE 4

C - Journal (JJ)

Increasing in income Or increasing in Liability

Increasing in cost Or increase in asset

B - Pay/AP/TT

Extracting credit record-set and adding up the amount to the original credit amount in credit field of that record-set

Creating an addition debit record-set for each addition set of transaction, amount in debit field. Storing

A - Rec/AR

Extracting debit record-set and adding up the amount to the original debit amount in debit field of that record-set

Creating an addition credit record-set for the each addition set of transaction, the amount in credit field. Storing

Amount in Foreign Currency ?

No

Yes

JJ page ?

Yes

No

Updating DUMMY Line for temporarily completing of double entry Journal

Created Journal

Figure 11 Item 3

Figure 11 Item 4

Repeating the Fig 4 and extracting the exchange record-set and recalculating the exchange difference amount by comparing the rates adopted for each credit amount and each debit amount of transactions set

favor

Adverse

Storing the amount in Credit Field in Exchange Record-set

Storing the amount in Debit Field in Exchange Record-set

C1

Each time after the completion of procedures in Figure 3 for local currency transaction Or completion of procedures in Figure 3 and Figure 4 for foreign currency transaction

Continued ?

No

End

Yes

Sending back the clear up page to remote user for addition set of transaction data input

Repeating the procedure of Figure 3

Go to procedure A, B or C for Working Pages of Rec/AR, Pay/AP/TT and JJ respectively

End

FIGURE 5

JJ-Transfer between Assets and Liabilities, incomes, expenditures and capital

Loop

Captured data of increase in liability or increase in income or in capital

Captured data of increase in asset or increase in expense

Alternative to Credit
processing

Alternative to Debit
processing

Credit Amount for Credit Field

Debit Amount for Debit Field

Foreign Currency

Yes

Foreign Currency

Yes

Current liability?

Current Asset?

Yes

No

No

Yes

(Credit Amount) * Book Rate

(Debit Amount) * Book Rate

(Credit Amount) * Transaction Rate

(Debit Amount) * Transaction Rate

Creating credit record-set, Storing the amount in Credit Field in this Credit Record-set

Creating debit record-set, Storing the amount in Debit Field in this Debit Record-set

Created Journal

Figure 12 Item 5

Figure 12 Item 6

Creating a DUMMY record-set with amount in zero

(Summation of total debit amount) – (Summation of total credit amount) = A

If A > 0, updating the DUMMY record-set by storing "A" in credit field and storing 0 in debit field. If A < 0, update the DUMMY record-set by storing "absolute(A)" in debit field and storing 0 amount in credit field. In case A = 0, deleting the DUMMY record-set, journal completed

End Loop

Procedure repeat

= Zero

<> Zero

FIGURE 6

A general-purpose computer with IE. User input data in working pages of which each is structured to collect all necessary data for a defined type of transaction and ensure the completeness a double entry journal in one stroke

World wide web

Program in Server

Encryption data of important pages

Checking for the access
rights of user

No - sending end message with hints

Pass ?

Yes

Tests on completion of necessary data and format of each data input for
ensuring correct input and free from any disturbances during transmission

It is the nature of transaction in general. JJ page makes room for user to define the treatment of
next record-set. It cannot be anticipated by the program the intention of user for the next
record-set. Adding temporary Dummy record-set to balance the journal for ensuring the double
entry criteria of each journal stored in database file. The Dummy record-set is automatically
deleted upon the completion of input of transactions set.

Failure in any one of those tests ?

Yes

No

Exchange difference calculation

Yes

Working with JJ page ?

No

Identifying user's
database file

Cleaning up page, giving hints, sending
back page to User IE for re-input

Completing record-sets in
memory unit of Server

Carrying out the pre-set procedures of the six working pages and
passing the processed data to "Debit equal Credit Test"

Pass ?

Yes

No

Opening database file and storing up double entry journal at an instant moment

All procedures are done and tested by the program in
Server. Processed data are stored into database

FIGURE 7

1. *Single User*

User with private identity and password accesses data and information stored in assigned database file.

User → Assigned Database

2. *Multi-Users Locally or all over the world*

Program recognizes identity and password of each of plurality of users and points them to their own separate and independent database files.

User A ↔ Assigned, separate and independent Database file for each user ↔ User B

↔ User C

FIGURE 8

Level 1 (Supervisor can access data and information of each individual BU and group information as a whole)

Level 2 (Users can access data and information of their own BU only)

Level 0 (Report user only)

Supervisory Level in Head Office

Staff in Head Office BU3

Users work on & access data by individual identity & password

Staff in BU2 at LA

Users work on & access data by individual identity & password

Staff in BU1 at TST

Users work on & access data by individual identity & password

Report User

BU3 data

BU2 data

BU1 data

Separate and Independent Corporate Database file

Data and information are processed and stored according to each BU and Head Office

10

Perform bookkeeping and information works

Report user only

FIGURE 9

Item 1

Debit Record-set	User's Identity	Account Code	Amount Captured	Amount in Debit Field - a	zero	Amount in Open-Invoice Field in case of AR and be reduced by Receipt Settlement
	Business Unit	Currency				
Credit Record-set	User's Identity	Account Code	Amount Captured	zero	Amount in Credit Field – b = a	Amount in Open-Invoice Field in case of AP and be reduced by Payment Settlement
	Business Unit	Currency				

Debit amount equal to credit amount.

Item 2

Debit Record-set	User's Identity	Account Code	Amount Captured	Amount in Debit Field - a	zero	Amount in Open-Invoice Field in case of AR and be reduced by Receipt Settlement
	Business Unit	Currency				
Credit Record-set	User's Identity	Account Code	Amount Captured	zero	Amount in Credit Field - b	Amount in Open-Invoice Field in case of AP and be reduced by Payment Settlement
	Business Unit	Currency				
Exchange Record-set	User's Identity	Account Code		Amount In Debit Field if adverse and zero in credit field (a-b) < 0	Amount in Credit Field if favor and zero in debit field (a-b) > 0	zero
	Business Unit	Currency				

Total Debit amount equal to total credit amount.

FIGURE 10

For preparing outstanding report

Item 3

Total Debit amount equal to total credit

				Amount in Debit Field - a	*zero*	
Debit Record-set	User's Identity	Account Code	Amount Captured	*Amount in Debit Field - a*	zero	Amount in Open-Invoice Field in case of AR and be reduced by Receipt Settlement
	Business Unit	Currency				
Credit Record-set	User's Identity	Account Code	Amount Captured	zero	*Amount in Credit Field – (a+b)*	Amount in Open-Invoice Field in case of AP and be reduced by Payment Settlement
	Business Unit	Currency				
Addition Debit Record-set for procedure in Figure 5	User's Identity	Account Code	Amount Captured	*Amount in Debit Field - b*	zero	Amount in Open-Invoice Field in case of AR and be reduced by Receipt Settlement
	Business Unit	Currency				

Item 4

Total Debit amount equal to total credit

				Amount in Debit Field - a	*zero*	
Debit Record-set	User's Identity	Account Code	Amount Captured	*Amount in Debit Field - a*	zero	Amount in Open-Invoice Field in case of AR and be reduced by Receipt Settlement
	Business Unit	Currency				
Credit Record-set	User's Identity	Account Code	Amount Captured	zero	*Amount in Credit Field - c*	Amount in Open-Invoice Field in case of AP and be reduced by Payment Settlement
	Business Unit	Currency				
Addition Debit Record-set for procedure in Figure 5	User's Identity	Account Code	Amount Captured	*Amount in Debit Field - b*	zero	Amount in Open-Invoice Field in case of AR and be reduced by Receipt Settlement
	Business Unit	Currency				
Exchange Record-set	User's Identity	Account Code		*Amount In Debit Field if adverse and zero in credit field (a+b-c) < 0*	*Amount in Credit Field if favor and zero in debit field (a+b-c) > 0*	zero
	Business Unit	Currency				

FIGURE 11

Item 5

	User's Identity / Business Unit	Account Code / Currency	Amount Captured	Amount in Debit Field - a		Amount in Open-Invoice Field in case of AR and be reduced by Receipt Settlement
Debit Record-set	User's Identity / Business Unit	Account Code / Currency	Amount Captured	Amount in Debit Field - a	zero	Amount in Open-Invoice Field in case of AR and be reduced by Receipt Settlement
Dummy Record Set	User's Identity / Business Unit	Account Code / Currency	Amount Captured	zero	Amount in Credit Field - b = a	zero

Debit amount equal to credit amount.

Item 6

	User's Identity / Business Unit	Account Code / Currency	Amount Captured	Amount in Debit Field - a		Amount in Open-Invoice Field in case of AR and be reduced by Receipt Settlement
Debit Record-set	User's Identity / Business Unit	Account Code / Currency	Amount Captured	Amount in Debit Field - a	zero	Amount in Open-Invoice Field in case of AR and be reduced by Receipt Settlement
Credit Record-set	User's Identity / Business Unit	Account Code / Currency	Amount Captured	zero	Amount in Credit Field - (a+b)	Amount in Open-Invoice Field in case of AP and be reduced by Payment Settlement
Addition Debit Record-set for procedure in Figure 5	User's Identity / Business Unit	Account Code / Currency	Amount Captured	Amount in Debit Field - b	zero	Amount in Open-Invoice Field in case of AR and be reduced by Receipt Settlement

Total Debit amount equal to total credit

FIGURE 12

* In case of local currency, these two cells need not be input.

FIGURE 13

DEMO LIMITED - ACCOUNT PAYABLE VOUCHER

HEAD OFFICE * 2000/4/1 - 2001/3/31

Select Creditor

Creditor Name (q)   [---]   Select Supplier / seller name

And Select Cost Category

Cost Category Or Transfer to
records of Inter Company   [---]   Select cost type, eg cloth
Account (w)

Details : (input -ve amount in case of returns (inward))

Supplier Invoice No. (a)	[ ]	Invoice Date (M/D/Y)	[ ]
Description	[ ]	Invoice Amount (S)	[0]
Currency?	[HKD]	Spot Rate (Max. 5 digits)	[1]

○ >> calling exchange calculator

[Enter]

FIGURE 14

Page REC

DEMO LIMITED - RECEIPT VOUCHER   HEAD OFFICE * 2000/4/1 - 2001/3/31

Select Received By   DebitRecord-set (S)

Bank Account(a) [---]☑ OR   Petty Cash(=) [---]☑ OR

Officer(c) [ ]☑ OR   Inter-Company(r) [---]☑

And Select Receipt Item (Select one only)   CreditRecord-set (O)

Asset or Liability Items() [---]☑ OR

Settle Debtor() [---]☑ OR

Income or Expense Item(d) [---]☑ Sub Income or Returns Outward() [---]☑
OR

Details - Input eye amount for expense transactions

Receive Ref (Bank Advice)(z) [ ]   Receipt Date (M/D/Y) [ ]

Description [ ]   Amount ($) [ ]

Mode [Continue ☑]

Currency [HKD ☑]   Spot Rate (Max. 5 digits) [1]

C >> calling exchange calculator

Select account of causing money flow into the company.

*Select one account from any one of four categories. Account type divided into four categories for easy understood/reference of users

[Enter]

Select account of money flow into the company.

*Select one account from any one of four categories. Account type divided into four categories for easy understood/reference of users

FIGURE 15

Page PAY

CP Accounting - Microsoft Internet Explorer		_ □ X

DEMO LIMITED - PAYMENT VOUCHER   HEAD OFFICE • 2000/4/1 - 2001/3/31

Select Paid by (select one only)   *Credit Record-set (S)*

Bank Account(q)   [---] 🖭 OR   Petty Cash(w)   ◄--- [---]   🖭 OR

Officer(e)   [---] 🖭 OR   Inter-Company (r)   [---] 🖭

And Select A Payment Item (select one only)   *Debit Record-set (O)*

Asset or Liability Items(a)   [---]   🖭 OR

Settle Creditor(s)   [---]   🖭 OR   ◄- - - - -

Income or Expense Item(d)   [---]   🖭 Sub Costs or Returns Inward   [---]   🖭
                                              (f)

Details : Input $ve amount for income transactions

Paid Reference (cheque #)(z)   [   ]   Payment Date (M/D/Y)   [   ]

Description   [   ]   Amount ($)   [   ]

Mode   [Continue 🖭]

Currency   [HKD 🖭]   Spot Rate (Max. 5 digits) [   ]

                    ○ >> calling exchange calculator

                              [Enter]

Select account of causing money flow out of the company.	Select account of money flow out of the company.
*Select one account from any one of four categories. Account type divided into four categories for easy understood/reference of users	*Select one account from any one of four categories. Account type divided into four categories for easy understood/reference of users

FIGURE 16

CP Accounting - Microsoft Internet Explorer

DEMO LIMITED - MONEY TRANSFER VOUCHER | HEAD OFFICE * 2000/4/1 - 2001/3/31

Select RECEIVED money by (select one only)

| Bank Account (q) | --- ☑ OR | Petty Cash(w) | --- ☑ OR |
| Officer(e) | --- ☑ | Inter-Company (r) | --- ☑ | *Debit Record-set (O)* |

And Select PAID money by (selection one only)

| Bank Account(a) | --- ☑ OR | Petty Cash(s) | --- ☑ OR |
| Officer(d) | --- ☑ | Inter-Company (f) | --- ☑ | *Credit Record-set (S)* |

Details

Transfer Reference (usually cheque no.) (t)	[ ]	Transfer Date (M/D/Y)	[ ]
Description	[ ]	Transfer Amount (S)	[ ]
Currency?	HK☑	Spot Rate (Max. 5 digits)	[1]

○ calling exchange calculator

[Enter]

Select account of money flow to other monetary account of the company.

*Select one account from any one of four categories. Account type divided into four categories for easy understood/reference of users

Select account of money flow from other corresponding monetary account of the company.

*Select one account from any one of four categories. Account type divided into four categories for easy understood/reference of users

FIGURE 17

CP Accounting - Microsoft Internet Explorer

DEMO LIMITED - JOURNAL VOUCHER   1   HEAD OFFICE · 2000/4/1 - 2001/3/31

Select one Account for Ea. Input

Fixed Asset(e)   [---] OR   Other Income / Expense(w)   [---]
                                 OR

Debtor / Creditor(r)   [---] OR   Bank and Cash(q)   [---] OR

Other Asset / Liability (t)   [---] OR   Inter-Co / Officer (y)   [---] OR

Outstanding Debtor / Creditor(i)   [---] OR

Sub Income / Cost(u)   [---]   ▲   *Record-set (O)*

Details (enter spot rate for calculating exchange difference for this transaction)

Reference(a)   [   ]   Transaction Date (M/D/Y)?   [   ]

Description(z)   [   ]   "Diff"

Amount (Dr) (S)   [0]   Amount (Cr) (S)   [0]

Currency   [HKD]   Spot Rate (Max. 5 digits)   [1]

          C >> calling exchange calculator

Continue until the cell "Diff" is equal to zero which represents the balancing of current journal

[Enter]

Debit / Credit Record-set (O) depending on

discretionary of users.

AND program will create a corresponding Credit /

Debit dummy Record-set (S) depending on the

summation amount of record-sets (O)s.

In case the summation = 0 , dummy will be deleted

by program;

In case of summation < 0, the dummy will be a

Debit side and equal to Abs(summation amount);

In case of summation > 0 the dummy will be a

Credit side and equal to summation amount.

Select account of asset, liabilities, income,

   expenses or capital

*Select one account from any one of eight

categories. Account type divided into eight

categories for easy understood/reference of users

FIGURE 18

DEMO LIMITED - RECEIPT VOUCHER   HEAD OFFICE * 2000/4/1 - 2001/3/31

| | Enter | | ○ (•) Delete Record ○ Cancel Delete |

| Journal Date | 2000/11/11 | Journal Code and Number | RR112000-6 |

Code	Acc. Name		Sub Code	Sub Name	Ref			
	Description		FX	C. Rate	Spot Rate	Status	Debit(HKD)	Credit(HKD)
25BK	Bank Account		BBUS	HSBC	Test			
	Test voucher sample; test Voucher Sample 2	DEM11000		3.88486	3.85000	O	42,733.50	0.00
21AR	Accounts Receivable		CN01	Nara	Test			
	Test voucher sample		DEM5000	3.85000	3.85000	O	0.00	19,250.00
73Ex	Exchange Difference		CN01	Nara	Test			
	Test voucher sample		HKD-19075.68	0.03486	0.03486	O	0.00	383.50
61SI	其他收入				Test			
	test Voucher Sample 2		DEM6000	3.85000	3.85000	O	0.00	23,100.00
							42,733.50	42,733.50

Dept : Head Office ; User : aaa

FIGURE 19

CP Accounting - Microsoft Internet Explorer

DEMO LIMITED

HEAD OFFICE * 2000/4/1 - 2001/3/31

PROFIT AND LOSS STATEMENT Working Period : (2000/4/1 - 2001/3/31)

Enter

Code	Acc. Name		Sub-Total (HKD)	Total Balance (HKD)	G. to T. (%)
	"Turnover"				
60IP	Principal Income		17,171,596.06		
				17,171,596.06	100.00%
	"Cost of Turnover"				
70CP	Principal Costs		14,437,048.55		
				-14,437,048.55	-84.08%
	GROSS PROFIT			2,734,547.51	15.92%
	"Other Income"				
61DR	折扣收入		481.00		
61Rent	租金收入		60,000.00		
61SI	其他收入		25,589.06		
				86,070.06	
				2,820,617.57	

FIGURE 20

CP-Reports
Working
Period :2000/4/1
- 2001/3/31

PERMANENT DATA || A | B | C | D | AI | G || K | Q | S | V | S || || R | R ||

HEAD OFFICE • 2000/4/1 · 2001/3/31

DATA CAPTURER AND PROCESSOR || AR | AP | REC | PAY | TI | JI ||
SUB PAGES || EDIT || || VS ||

? Tables
? Activities Rpt
? Stock Rpt
? Financial Rpt

DEMO LIMITED - ACCOUNT RECEIVABLE VOUCHER

Function Selection : ⊙ (1) Add New Record ○ (2) Search - Select Month - | Mth |

| Enter |

Included in Permanent Data -
Non-Current Assets register and
Prepayment register

Calling Permanent Data for
reference and updating

For instance, an extension from page AR, combos for
selecting Visa Card Type and for selecting Stock Item
are added, becoming page VS which represents sale
transaction be settled by customer's Credit Card. This is
an example for the system applicable to retail business.

Data Capturer and Processor –
the Six Working Pages

Edit - For retrieving stored
journal for editing

Report Requisition Platform

Working Platform

FIGURE 21

Data Capturer and Processor	Type of Transaction	Debit Field in Debit Record-set	Credit Field in Credit Record-set
AR page	Credit sales	Debtor receivable (S)	Income (O)
AP page	Credit purchase	Cost / Expenditure (O)	Creditor payable (S)
Rec page	Monetary in	Monetary account as receipt bank (S)	Account caused the money flow in (O)
Pay page	Monetary out	Account caused the money flow out (O)	Monetary account as payment bank (S)
TT page	Monetary transfer	Monetary account flow in (O)	Monetary account flow out (S)
JJ page (1ˢᵗ case)	general transaction	Account - increment in asset or expenditure (O)	Equal amount in dummy record-set (S)
JJ page (2ⁿᵈ case)	general transaction	Equal amount in dummy record-set (S)	Account - increment in liabilities or income (O)

Depending on rules pre-set in each of the six pages, the record-set (O) and record-set (S) to be posted to Debit Field of Debit Record-Set or Credit Field of Credit Record-Set.

FIGURE 22

DEMO LIMITED - SAMPLES SELECTION FOR AUDITORS USE

* 2000/4/1 - 2001/3/31

Selection Category	Criteria	Accounts Category	
Confirmation (1) AR (2) AP	Amount Bigger than	N/A	Bigger than / Interval
Transaction Test?; (q) Sale (w) Purchase	The Biggest one per Month	出口單	Month Position / Interval
Bank Transaction Test? (a) Receipt (r) Payment	The Biggest one per Month	BBUS	Month Position / Interval
Cut Off Test? (z) Sale (x) Purchase	N/A	出口單	Month Position / Interval 5

Enter

FIGURE 23